

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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File

411.77693/002

31 DEC 2003

Frank B. Dehn & Co.  
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PCT

WRITTEN OPINION

(PCT Rule 66)

Date of mailing  
(day/month/year)

29.12.2003

Applicant's or agent's file reference  
411.77693/002

REPLY DUE

within 2 month(s)  
from the above date of mailingInternational application No.  
PCT/GS 03/01689International filing date (day/month/year)  
17.04.2003Priority date (day/month/year)  
19.04.2002International Patent Classification (IPC) or both national classification and IPC  
C12N1/20Applicant  
NORFERM DA et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 19.08.2004

DUE DATES  
NOTEDName and mailing address of the international  
preliminary examining authority:European Patent Office  
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## 1. Basis of the opinion

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

## Description, Pages

1-20 as originally filed

## Claims, Numbers

1-14 as originally filed

## Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-3, 7 NO
Inventive step (IS)	Claims	4-6, 8, 10-14 NO
Industrial applicability (IA)	Claims	

**2. Citations and explanations****see separate sheet**

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1 = DD290917

D2 = Bothe et al., Appl. Microbiol. Biotechnol. (4 April 2002) 59:33-39

D3 = WO01/60974

**1. Novelty (Article 33.2 PCT)**

**1.1 Claims 1 to 3, and 7**

Claims 1 to 3, and 7 are not new contrary to Article 33.2 PCT.

DD290917 (D1) discloses the culturing of *Methylobacterium rhodesianum*. The growth substrate comprises a hydrolysate of bacterial biomass (claim 1 on page 1). According to page 2 of the description, line 12, the hydrolysed biomass may be obtained from the used bacteria, i.e. from the methanotrophic bacteria of the species *Methylobacterium rhodesianum*.

Thus, DD290917 (D1) discloses the subject-matter of claims 1 to 3, and 7.

**1.2 Claims 4 to 6, and 8 to 14 appear to be new in light of the cited prior art.**

**2. Inventive Step (Article 33.3 PCT)**

**2.1 Claims 4 to 6, 8, and 10 to 14**

Claims 4 to 6, 8, and 10 to 14 appear to relate to standard ingredients of growth media as well as standard amounts thereof.

Therefore, inventive step according to Article 33.3 PCT cannot be acknowledged for these claims.

**2.2 Claim 9**

Claim 9 can be regarded as being inventive in compliance with Article 33.3 PCT.

Claim 9 relates to the use of a specific mixture of one methanotrophic and two heterotrophic bacteria for producing biomass for a bacterial growth medium. Although

such mixtures have already been used to produce biomass (see page 2 of the present application, third paragraph, and Bothe et al. (D2), abstract), and although that biomass has already been used to produce food or feed products (see WO01/60974 (D3), e.g., page 13, third paragraph), none of the cited prior art documents alone or in any combination appears to suggest the use of that specific biomass to produce bacterial growth medium.

Consequently, the subject-matter of claim 9 involves an inventive step.

### 3. Additional observations regarding Enabling Disclosure

#### 3.1 Claim 9

As mentioned above, claim 9 relates to the use of a mixture of one specific methanotrophic and two specific heterotrophic bacteria for producing biomass for a bacterial growth medium.

Regarding the reference to deposited biological material, the PCT does not provide any unified criteria (see Rule 13bis.3(b) PCT). Before the EPO, for instance, an invention involving the use of biological material is only regarded as being disclosed as prescribed in Article 83 EPC if a sample of the biological material has been deposited with a recognised depositary institution not later than the filing date of the application (see Rule 28 EPC).